

That which we claim is:

1. In a process for cleaning textile in a drum within a machine, said process characterized by the steps of:

 dampening the textile with liquid, other than
5 for spotting, in the absence of soaking or immersing the textile in liquid;

 controlling the duration that the textile maintains hydration; and

 said controlling including at least in part
10 placing highly absorbent pad material into the drum for absorbing at least some of the liquid in the textile and drum for release back into air within the drum and into the textile at a rate slower than being released from the dampened textile.

2. In the process according to claim 1, characterized by the step of dampening being:

 manually dampening the textile with solvent, exterior to the drum and machine.

3. In a process according to claim 1 said step of dampening being characterized by:

spraying automatically the solvent into the drum from exterior the drum.

4. In a process according to claim 3, said step of dampening also characterized by:

spraying automatically into the drum, from exterior the drum, at least one of steam, air and water.

5. In a process for cleaning textile in a drum within a machine, said process characterized by the steps of:

5 placing highly absorbent pad material into the drum;

generating relative movement between the textile, the pad material and cleaning/rinsing liquid in the drum; and

scrubbing action thereby being caused by the 10 pad material upon the textile.

6. In the process according to claim 5, the machine being a combination textile washing and drying machine, characterized by the steps of:

absorbing, by the pad material, some of
5 cleaning/rinsing liquid from the textile and the drum,
during said scrubbing action;

retaining the pad material in the drum after
the scrubbing action and throughout textile drying by the
machine; and

10 controlling the duration of hydration that the
liquid has imparted to the textile by releasing some of
that liquid from the pad material back into the textile
and the drum.

7. In the process according to claim 5 or 6,
characterized by the step of:

securing at least some of said pad material to
the interior of the drum.

8. In the process according to any one of claims 1, 3 or 6, the step of:

removing the textile from the drum when the textile has sufficiently dried, but also retains enough 5 hydration to be substantially wrinkle free.

9. Apparatus for cleaning textile (12, 14, 111, 113) in a drum (16, 103) within a machine (10, 64, 101), said apparatus characterized by:

dampening means (20-26; 48) for applying 5 solvent (18, 70) to the textile, other than for spotting, to dampen the textile, in the absence of soaking or immersing the textile in the solvent or any liquid; and highly absorbent pad material (3, 54, 56, 115, 117) in said drum;

10 said pad material and the dampened textile being in rubbing contact in said drum; whereby, soil and solvent are transferred from the textile (12, 14, 111, 113) to said pad material (3, 54, 56, 115, 117) and; at least near the end of the cleaning, while 15 the textile is drying in said drum, said pad material hydrates the textile to deter the formation of wrinkles.

10. Apparatus according to claim 9, characterized in that:

at least some of said pad material (54, 115, 117) is detachably secured within said drum (16, 103).

11. Apparatus according to claim 9, wherein said drum (16, 103) has interior lifting ribs (52, 107); characterized that:

said pad material (54, 115) is detachably secured to said lifting ribs (52, 107).

12. Apparatus according to any one of claims 9-11, characterized wherein,

said pad material (3, 54, 56, 115, 117) is untreated.

13. Apparatus according to any one of claims 9-11, characterized wherein,

said pad material (3, 54, 56, 115, 117) is felt and is untreated.

14. Apparatus according to claims 9 or 10, characterized in which, said dampening means is constructed and arranged (18-26; 74, 76) to spray solvent (18, 70) 5 automatically, from exterior said drum, into said drum (16, 103).

15. Apparatus according to claim 14, characterized by: automatic spraying equipment (18-26; 74, 76), for additionally spraying into said drum (16) at least 5 one of air (48), steam, or water (39), without soaking or immersing the textile in liquid in said drum.

16. Apparatus for cleaning textile (12, 14, 113, 115), characterized by: a drum (16, 103) within a machine (10, 101); highly absorbent pad material (3, 54, 56, 115, 5 117) in said drum); means for introducing liquid into said drum for cleaning and rinsing textile (12, 14, 111, 113) in said drum; and

means for generating relative movement between
10 the textile, the liquid and said pad material;
whereby said textile rubs against said pad
material, causing a scrubbing of said textile.

17. Apparatus according to claim 16, characterized
in which:

said machine is a laundry washing machine
(101); and

5 said pad material (115, 117) is attached to
the interior of said drum (103).

18. Apparatus according to claim 16, characterized
in which:

said machine is a combination washing and
drying machine (101);

5 said pad material (115, 117) is present in said
drum (103) during washing and drying of the textile (111,
113); and

said pad material (115, 117) defines a source
for hydration of the textile during drying thereof in
10 said drum; whereby,

the textile does not dry to the extent that wrinkles are formed prior to the textile removal from said drum.

19. For use in a process for drying wet textile in a rotatable drum of a textile dryer, the invention comprising:

highly absorbent pad material, for maintaining hydration of the initially wet textile in the drum by; absorbing some of the liquid in the wet textile, when the pad material and the textile rub against each other during rotation of the drum; and releasing back, from the pad material to the textile and the interior of the drum, some of the liquid at a rate slower than being removed from the textile.

20. The invention according to claim 19 in which said pad material is secured to the interior periphery of the drum to provide at least one of:

a cushion protective of buttons and zippers on the textile as they tumble in the rotating drum; and a smooth, soft hand finish to the drying textile.

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21. In a kit for use with a textile dryer having a rotatable drum:

highly absorbent pad material to be placed in the drum with liquid wet textile;

whereupon, at least near the end of the typical drying cycle, said pad material hydrates the textile to deter formation of wrinkles.